

Attorney Docket No. SWA-30140
Application No. 10/643,462
Amendment and Response

In the Claims

Please cancel claims 2-24. Please add new claims 25-57, as shown below.

1. (Original) A mobile data reading system for reading bulky data-associated articles being manually handled by a user, the system comprising:

a frame mounted on rollers to facilitate moving the frame over a support surface to selected locations;

a reader having a reader head mounted to the frame for receiving a data signal from a data-associated item to be read when the article is brought within a proximal distance to the reader head without requiring handling of the reader head by the user during scanning of articles;

a data storage device for receiving and storing data associated with the received data signal; and

a power supply for supplying power to the reader.

Claims 2-24 (Canceled)

25. (New) The mobile data reading system of claim 1, wherein:

the reader head is spaced apart a distance from the frame to facilitate scanning of the bulky articles by bringing the articles within the proximal distance of the reader head without interfering with the frame.

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26. (New) The mobile data reading system of claim 1, wherein:

the data storage device includes at least one hand-held data reader removably mounted to the frame that is separate from the mounted reader and is independently capable of receiving a data signal from a data associated article.

27. (New) The mobile data reading system of claim 26, further comprising:

at least one hand-held reader station mounted to the frame for receiving the hand-held data reader, the reader station receiving and transmitting the data from the reader to the hand-held data reader when the hand-held data reader is received by the reader station.

28. (New) The mobile data reading system of claim 27, wherein:

there are two hand-held reader stations mounted to the frame for receiving two hand-held data readers, and wherein data from one hand-held data reader is transmitted to the other when received by the reader stations.

29. (New) The mobile data reading system of claim 25, wherein:

the reader head is selectably movable on an arm between a retracted position and an extended position wherein the reader head is spaced apart from the frame.

30. (New) The mobile data reading system of claim 1, wherein:

the reader head is articulable about at least two axes for orienting the reader head at different orientations.

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31. (New) The mobile data reading system of claim 1, wherein:

the reader head is located at a position at least 3.5 feet above the support surface.
32. (New) The mobile data reading system of claim 1, wherein:

the proximal distance is 1 meter or less.
33. (New) The mobile data reading system of claim 26, wherein:

the hand-held data reader includes a handheld computer with an optical scanner.
34. (New) The mobile data reading system of claim 1, further comprising:

a reader head shroud that covers the reader head.
35. (New) The mobile data reading system of claim 34, wherein:

the shroud provides a shaded area over a scan field of the reader.
36. (New) The mobile data reading system of claim 35, wherein:

the shroud has sidewalls that project beyond the reader head and are spaced laterally apart from a projected scan field of the reader.
37. (New) The mobile data reading system of claim 1, further comprising:

a heat transfer device coupled to the reader head for transferring heat away from and to the reader head.

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38. (New) The mobile data reading system of claim 37, wherein:

the heat transfer device includes a thermoelectric cooler.

39. (New) The mobile data reading system of claim 1, wherein:

the reader head is a non-hand-held reader head.

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40. (New) A self-contained mobile data reading system for reading data associated with bulky articles having data indicia thereon, the system comprising:

a frame mounted on rollers to facilitate moving the frame over a support surface to selected locations;

a non-hand-held optical scanning device mounted to the frame having an optical scanner for projecting a scanning field for reading optically scanned data indicia of the articles when the data indicia is brought within the scanning field of the optical scanner without requiring handling of the optical scanner by the user, the optical scanning device providing at least one of a audible or visual notification upon completion of a successful scan of the data indicia;

a data storage device for receiving and storing data from the optical scanning device, the data storage device including a removable hand-held data reader having an optical scanner that is separate from that of the non-hand-held reader and is independently capable of projecting a scanning field for reading optically scanned data;

at least one hand-held-reader station mounted to the frame for receiving the hand-held data reader and that transmits data from the non-hand-held optical scanning device to the hand-held data reader; and

a battery power supply mounted to the frame for supplying power to at least one of the optical scanning device and the hand-held reader station.

41. (New) The mobile data reading system of claim 40, wherein:

the optical scanner is mounted on an articulable arm for orienting the optical scanner at different positions and orientations.

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42. (New) The mobile data reading system of claim 40, wherein:

there are two hand-held reader stations mounted to the frame for receiving two hand-held data readers.

43. (New) The mobile data reading system of claim 40, wherein:

there are two hand-held reader stations mounted to the frame for receiving two hand-held data readers, and wherein data from one hand-held data reader is transmitted to the other when received by the reader stations.

44. (New) The mobile data reading system of claim 40, wherein:

the reader head is selectably movable on an arm between a retracted position and an extended position wherein the reader head is spaced apart from the frame.

45. (New) The mobile data reading system of claim 40, wherein:

the reader head is articulable about at least two axes for orienting the reader head at different orientations.

46. (New) The mobile data reading system of claim 40, wherein:

the reader head is located at a position at least 3.5 feet above the support surface.

47. (New) The mobile data reading system of claim 40, wherein:

the proximal distance is 1 meter or less.

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48. (New) The mobile data reading system of claim 40, wherein:

the hand-held data reader includes a handheld computer with an optical scanner.

49. (New) The mobile data reading system of claim 40, further comprising:

a reader head shroud that covers the reader head.

50. (New) The mobile data reading system of claim 49, wherein:

the shroud provides a shaded area over a scan field of the reader.

51. (New) The mobile data reading system of claim 50, wherein:

the shroud has sidewalls that project beyond the reader head and are spaced laterally apart from a projected scan field of the reader.

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52. (New) A method of tracking articles being shipped comprising:

providing a plurality of articles to be tracked with identifying data associated therewith at a first location;

moving a mobile data reading system from a remote location to the first location for reading the identifying data, the mobile data reading system including:

a frame mounted on rollers to facilitate moving the frame over a support surface to selected locations;

a reader mounted to the frame, the reader having a reader head for receiving a data signal from a data-associated item to be read when the article is brought within a proximal distance to the reader head without requiring handling of the reader head by the user during scanning of articles, the reader head being spaced apart from the frame a distance to facilitate scanning of bulky articles without interfering with the frame;

a data storage device for receiving and storing data associated with the received data signal mounted on the frame; and

a power supply for supplying power to the reader;

performing a reading operation at the first location by manually bringing each of the articles with identifying data within the proximal distance of the reader head so that the identifying data is read by the reader without handling of the reader head by one performing the reading operation, the reader providing at least one of an audible or visual notification upon completion of a successful scan of the data indicia; and

storing the read identifying data within the data storage device.

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53. (New) The method of claim 52, further comprising:

sorting the articles into discrete groups based upon shipping destination of the articles upon performing the reading operation;

downloading the stored read identifying data from the data storage device with a portable data reading device that is brought into proximity to the data storage device upon sorting of the articles; and

uploading the downloaded data from the portable data reading device to a central database.

54. (New) The method of claim 52, further comprising:

sorting the articles into discrete groups upon performing the reading operation based upon shipping destination of the articles;

providing a unit-load identifier (ULI) with the articles of at least one discrete group that has been scanned during the reading operation; and

performing an assignment operation to associate the ULI with the at least one discrete group.

55. (New) The method of claim 54, wherein:

there are at least two mobile data reading systems each having stored read identifying information and ULI information; and further comprising

collecting the stored read identifying information and ULI information from each of at least two mobile data reading systems.

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56. (New) The method of claim 55, wherein:

the data storage device of each mobile data reading system includes a removable hand-held data reader that is removably received within one of two hand-held-reader stations mounted to the frame, and wherein the stored read identifying information and ULI information is collected by transmitting the read identifying information and ULI information to another hand-held-reader when said another hand-held-reader is received by the reader station.

57. (New) The method of claim 54, wherein:

providing a ULI identifier includes providing a ULI tag dispenser with the mobile data reading system and dispensing a ULI tag from the dispenser and securing the tag to at least one article of the at least one discrete group.